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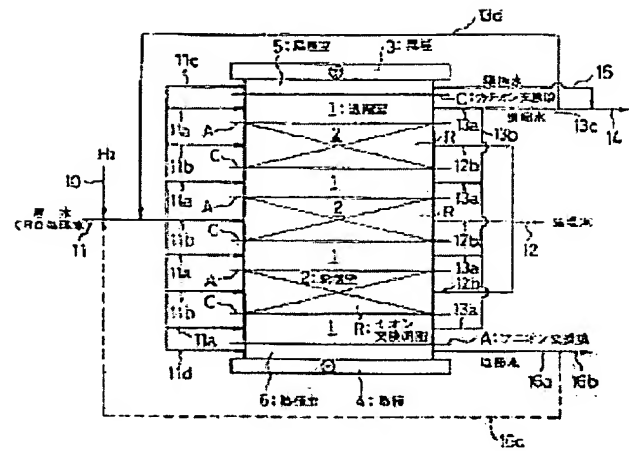
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APPLICANT : KURITA WATER IND LTD;

INVENTOR : KOIZUMI MOTOMU;

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TITLE : ELECTRIC DEIONIZATION DEVICE



ABSTRACT : **PROBLEM TO BE SOLVED:** To provide an electric deionization device with a deoxidizing function by mixing anion exchange resin and cation exchange resin to pack a desalting chamber with a mixture thereof, making a part of the anion exchange resin in the desalting chamber catalytic resin carrying metal, and feeding hydrogen to raw water to be introduced into the electric deionization device.

SOLUTION: Plural anion exchange membranes A and cation exchange membrane C are alternately arranged in parallel to alternately form concentration chambers 1 and desalting chambers 2. The desalting chambers 2 each are packed with a mixture of ion exchange resin R, anion exchange resin and cation exchange resin, and catalytic resin in which metal is deposited on anion exchange resin. Ions in raw water are concentrated in the concentration chambers 1, and in the desalting chambers 2, water from which anion and cation components have been removed is produced. The raw water is contacted with the catalytic resin in the desalting chambers 2 in the presence of added gaseous H_2 allowing dissolved oxygen (DO) to be decomposed and removed. In this way, water from which ions and DO have been removed is taken out as treated water through piping 12b and 12.

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